SIEMENS

Residential Standby Generators

17 and 20 kW Air-cooled gas engine

Data Sheet

Catalog numbers:
ASGE017RBS - steel 17 kW 60Hz
ASGE017RBA - aluminum 17 kW 60Hz
ASGE020RBA - aluminum 20 kW 60Hz

Includes::
- True Power™ Electrical Technology
- Two Line LCD Multi-Lingual Digital Evolution™ Controller (English/Spanish/French /Portuguese)
- Two Transfer Switch Options Available: 100 Amp Pre-Wired ST Switch or 200 Amp SE Switch. See Pages 5 and 6 for details.
- Electronic Governor
- External Main Circuit Breaker, System Status & Maintenance Interval LED Indicators
- Sound Attenuated Enclosure
- Flexible Fuel Line Connector
- Composite Mounting Pad
- Natural Gas or LP Gas Operation
- 5 Year Limited Warranty
- UL 2200 Listed

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USA ENGINEERED & BUILT

Features

Innovative design & prototype testing

Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose a Siemens standby generator with the confidence that these systems will provide superior performance.

True Power™ electrical technology

Superior harmonics and sine wave form produce less than 5% Total Harmonic Distortion for utility quality power. This allows confident operation of sensitive electronic equipment and micro-chip based appliances, such as variable speed HVAC systems.

Test criteria

- Prototype tested
- System torsional tested
- NEMA MG1-22 evaluation
- Motor starting ability

Solid-state, frequency compensated voltage regulation.

This state-of-the-art power maximizing regulation system is standard on all Siemens models. It provides optimized **fast response** to changing load conditions and **maximum motor starting capability** by electronically torque-matching the surge loads to the engine. Digital voltage regulation at ±1%.

17/20 kW Features and Benefits

Engine	
Generac (OHVI) design	Maximizes engine "breathing" for increased fuel efficiency. Plateau honed cylinder walls and plasma moly rings helps the engine run cooler, reducing oil consumption resulting in longer engine life.
"Spiny-lok"cast iron cylinder walls	Rigid construction and added durability provide long engine life.
Electronic ignition/spark advance	These features combine to assure smooth, quick starting every time.
Full pressure lubrication system	Pressurized lubrication to all vital bearings means better performance, less maintenance and longer engine life. For 17 KW now featuring up to a 2 year/200 hour oil change interval. 20 KW oil change interval is every 100 hours or 1 year.
Low oil pressure shutdown system	Superior shutdown protection prevents catastrophic engine damage due to low oil.
High temperature shutdown	Prevents damage due to overheating.
Generator	
Revolving field	Allows for smaller, light weight unit that operates 25% more efficiently than a revolving armature generator.
Skewed stator	Produces a smooth output waveform for compatibility with electronic equipment.
Displaced phase excitation	Maximizes motor starting capability.
Automatic voltage regulation	Regulates the output voltage to ±1% prevents damaging voltage spikes.
UL 2200 listed	For your safety.
Transfer Switch	
Fully automatic	Transfers your vital electrical loads to the energized source of power.
Pre-wired, color-coded conduits (Pre-wired ST switches only)	Ensures the easiest, trouble-free installation.
DPM Technology (SE Switch only)	Digital Power Management Technology allows for the smart control of two air conditioners without any additional items.
Remote mounting	Mounts near your existing distribution panel for simple, low-cost
Evolution™ Controls	
Auto/Manual/Off illuminated buttons	Selects the operating mode and provides easy, at-a-glance status indication in any condition.
Sealed, raised buttons	Smooth, weather-resistant user interface for programming and operations.
Utility voltage sensing	Constantly monitors utility voltage, setpoints 60% dropout, 80% pick-up, of standard voltage.
Generator voltage sensing	Constantly monitors generator voltage to ensure the cleanest power delivered to the home.
Utility interrupt delay	Prevents nuisance start-ups of the engine, adjustable 2-1500 seconds from the factory default setting of 10 seconds by a qualified dealer.
Engine warm-up	Ensures engine is ready to assume the load, setpoint approximately 5 seconds.
Engine cool-down	Allows engine to cool prior to shutdown, setpoint approximately 1 minute.
Programmable seven day exerciser	Operates engine to prevent oil seal drying and damage between power outages by running the generator for 12 minutes every week.
Smart battery charger	Delivers charge to the battery only when needed at varying rates depending on outdoor air temperature.
Main line circuit breaker	Protects generator from overload.
Electronic governor	Maintains constant 60 Hz frequency.
Unit	
Weather protective enclosure	Ensures protection against mother nature. Hinged key locking roof panel for security. Lift-out front for easy access to all routine maintenance items. Electrostatically applied textured epoxy paint for added durability.
Enclosed critical grade muffler	Quiet, critical grade muffler is mounted inside the unit to prevent injuries.
Small, compact, attractive	Makes for an easy, eye appealing installation.
SAE	Sound attenuated enclosure ensures quiet operation.
Installation System	
1' flexible fuel line connector Composite mounting pad	Easy installation.

17/20 kW Specifications

Generator Model	ASGE017RBS, ASGE017RBA (17 kW)	ASGE020RBA (20 kW)
Rated Maximum Continuous Power Capacity (LP)	17,000 Watts*	20,000 Watts*
Rated Maximum Continuous Power Capacity (NG)	16,000 Watts*	18,000 Watts*
Rated Voltage	240	240
Rated Maximum Continuous Load Current – 240 Volts (LP/NG)	70.8/66.6	83.3/75
Total Harmonic Distortion	Less than 5%	Less than 5%
Main Line Circuit Breaker	65 Amp	90 Amp
Phase	1	1
Number of Rotor Poles	2	2
Rated AC Frequency	60Hz	60Hz
Power Factor	1.0	1.0
Battery Requirement (not included)	Group 26R, 12 Volts and 525 CCA Minimum	
Unit Weight (Pounds/Kilos)	471/213.6 (Steel); 437/198.2 (Aluminum)	451/204.6
Dimensions (L x W x H) in./mm	48 x 25 x 29/1218 x 638 x 732	
Sound output in dB(A) at 23 ft. with generator operating at normal load	66	66
Sound output in dB(A) at 23 ft. with generator in Quiet-Test™ low-speed exercise mode	60	60
Engine		
Type of Engine	GENERAC OHVI V-TWIN	GENERAC OHVI V-TWIN
Number of Cylinders	2	2
Displacement	992cc	999cc
Cylinder Block	Aluminum w/Cast Iron Sleeve	Aluminum w/Cast Iron Sleeve
Valve Arrangement	Overhead Valve	Overhead Valve
Ignition System	Solid-state w/Magneto	Solid-state w/Magneto
Governor System	Electronic	Electronic
Compression Ratio	9.5:1	9.5:1
Starter	12 Vdc	12 Vdc
Oil Capacity Including Filter	Approx. 1.9 Qts./1.8L	Approx. 1.9 Qts./1.8L
Operating RPM	3,600	3,600
Fuel Consumption **Natural Gas ft³/hr.** **1/2 Load** **Full Load** **Liquid Propane ft³/hr (gal/hr) [Liters/hr]** **1/2 Load** **Full Load**	 193 312 72.4 (1.99) [7.53] 130 (3.57) [13.53]	 205 308 75.6 (2.08) [7.87] 140 (3.85) [14.57]

Note: **Fuel pipe must be sized for full load.** Required fuel pressure to generator fuel inlet at all load ranges - 3.5 to 7 inches of water column for natural gas, 10 to 12 inches of water column for LP gas For Btu content, multiply ft³/hr x 2520 (LP) or ft³/hr x 1000 (NG)

17/20 kW Specifications

Controls	
2-Line Plain Text Multi-Lingual LCD Display	Simple user interface for ease of operation
Mode Buttons: Auto	Automatic Start on Utility failure. 7 day exerciser.
Manual	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Off	Stops unit. Power is removed. Control and charger still operate.
Ready to Run/Maintenance Messages	Standard
Engine Run Hours Indication	Standard
Programmable start delay between 2-1500 seconds	Standard (programmable by dealer only)
Utility Voltage Loss/Return to Utility Adjustable	From 140-171V/190-216V
Future Set Capable Exerciser/Exercise Set Error Warning	Standard
Run/Alarm/Maintenance Logs	50 Events Each
Engine Start Sequence	Cyclic cranking: 16 sec. on, 7 rest (90 sec. maximum duration).
Starter Lock-out	Starter cannot re-engage until 5 sec. after engine has stopped.
Smart Battery Charger	Standard
Charger Fault/Missing AC Warning	Standard
Low Battery/Battery Problem Protection and Battery Condition Indication	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Under-Frequency/Overload/Stepper Overcurrent Protection	Standard
Safety Fused/Fuse Problem Protection	Standard
Automatic Low Oil Pressure/High Oil Temperature Shutdown	Standard
Overcrank/Overspeed (@ 72Hz)/RPM Sense Loss Shutdown	Standard
High Engine Temperature Shutdown	Standard
Internal Fault/Incorrect Wiring Protection	Standard
Common External Fault Capability	Standard
Field Upgradable Firmware	Standard

Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). * Maximum wattage and current are subject to and limited by such factors as fuel Btu content, ambient temperature, altitude, engine power and condition, etc. Maximum power decreases about 3.5 percent for each 1,000 feet above sea level; and also will decrease about 1 percent for each 6° C (10° F) above 16° C (60°F). Sound output ratings from certain points on the generator **subject to change based on installation parameters.**

17/20 kW Switch Options

ST Pre-Wired Switch Features

- Electrically operated, mechanically-held contacts for fast, positive connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive.
- 2 pole, 250 VAC contactors.
- 30 millisecond transfer time.
- Dual coil design.
- Main contacts are silver plated or silver alloy to resist welding and sticking.
- NEMA 1 (indoor rated) enclosure is standard on the pre-wired switch.
- Pre-wired 30 foot (9.1 meter) whip to connect to the provided 5 foot pre-wired whip and external connection box.
- Pre-wired 2 foot (0.61 meter) whip, color coded to connect into the existing electrical panel.

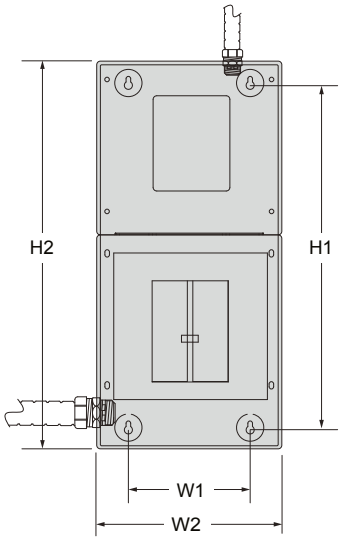
Model	ST100R16C (17 kW)
No. of Poles	2
Current Rating (Amps)	100
Voltage Rating (VAC)	120/240, 1Ø
Utility Voltage Monitor (Fixed)*	
-Pick-up	80%
-Dropout	60%
Return to Utility*	approx. 15 sec.
Exerciser weekly for 12 minutes*	Standard
UL Listed	Standard
Total of Pre-wired Circuits	16
No. 15A 120V	5
No. 20A 120V	5
No. 20A 240V	1
No. 30A 240V	-
No. 40A 240V	1
No. 50A 240V	1
Circuit Breaker Protected Available RMS Symmetrical Fault Current @ 250 Volts	10,000

*Function of Evolution Controller

Dimensions

Mechanical Dimensions					
Amps	Height		Width		Depth
	H1	H2	W1	W2	
100	23.5 in.	26.4 in.	8.3 in.	12.6 in.	6.3 in.
	597mm	671.7mm	211mm	320.7mm	159.6mm

Wire Ranges			
Amps	Conductor lug	Neutral lug	Ground lug
100	2/0 - #14	2/0 - #14	2/0 - #14



17/20 kW Switch Options

SE Switch Features

- Includes Digital Power Management Technology standard (DPM).
- Intelligently manages two air conditioner loads with no additional hardware.
- Up to four more large (240V) loads can be managed when used in conjunction with Power Management Modules (PMM).*
- Electrically operated, mechanically-held contacts for fast, clean connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive.
- 2 pole, 250 VAC contactors.
- Rated for both aluminum and copper conductors.
- NEMA/UL 3R aluminum outdoor enclosure.
- Main contacts are silver plated or silver alloy to resist welding and sticking.

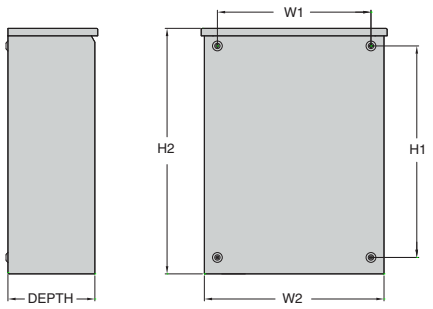
**Note: PMM starter kit is required prior to using the modules.

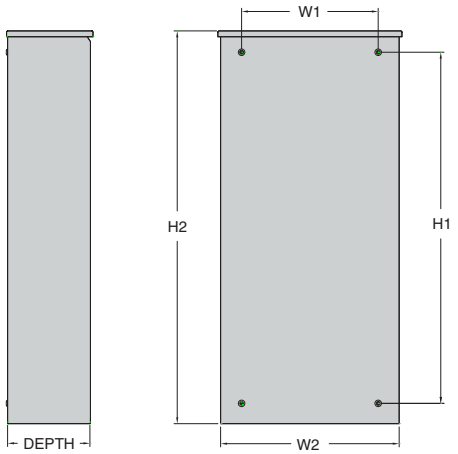
Model	SE100R, SE100RD SE150RD, SE200R SE200RD (17 & 20kW)
No. of Poles	2
Current Rating (Amps)	100, 150, & 200
Voltage Rating (VAC)	120/240, 1Ø
Utility Voltage Monitor (Fixed)* -Pick-up -Dropout	 80% 60%
Return to Utility*	approx. 13 sec.
Exerciser weekly for 12 minutes*	Standard
UL Listed	Standard
Enclosure Type	NEMA/UL 3R
Withstand Rating (Amps)	10,000
Lug Range	250MCM - #6

*Function of Evolution Controller

Dimensions

Model		SE100R	SE100RD	SE150RD	SE200R	SE200RD
Height (in./mm)	H1	17.24/437.9	17.24/437.9	26.75/679.4	17.24/437.9	26.75/679.4
	H2	20/508	20/508	30/762	20/508	30/762
Width (in./mm)	W1	12.5/317.5	12.5/317.5	10.5/266.7	12.5/317.5	10.5/266.7
	W2	14.6/370.8	14.6/370.8	13.5/342.9	14.6/370.8	13.5/342.9
Depth (in./mm)		7.09/180.1	7.09/180.1	6.3/160.1	7.09/180.1	6.3/160.1
Weight (lbs./kilos)		20/9.07	22.5/10.21	39/17.69	20/9.07	39/17.69

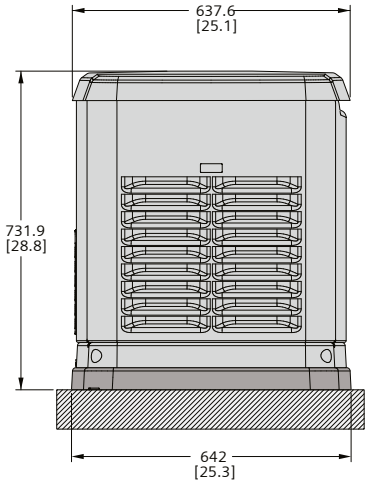




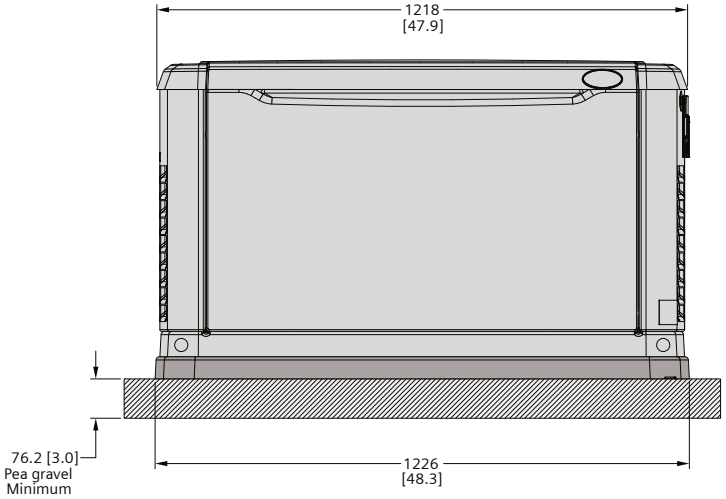
17/20 kW Accessories

Catalog no.	Product	Description
6212	Cold Weather Kit	If the temperature regularly falls below 32°F (0°C), install a cold weather kit to maintain optimal battery and oil temperatures. Kit consists of a battery warmer and oil filter heater with built-in thermostats.
5621	Auxiliary Transfer Switch Contact Kit	The auxiliary transfer switch contact kit allows the transfer switch to lock out a single large electrical load you may not need. Not compatible with 50 amp pre-wired switches.
5666	Fascia Base Wrap Kit (Standard on 20kW)	The fascia base wrap snaps together around the bottom of the new air cooled generators. This offers a sleek, contoured appearance as well as offering protection from rodents and insects by covering the lifting holes located in the base.
GENPAINT2	Paint Kit	If the generator enclosure is scratched or damaged, it is important to touch-up the paint to protect from future corrosion. The paint kit includes the necessary paint to properly maintain or touch-up a generator enclosure.
GENMKIT21 - 17KW GENMKIT22 - 20KW	Scheduled Maintenance Kit	Scheduled maintenance kits provide all the hardware necessary to perform complete routine maintenance on an automatic standby generator.
5928	Basic Wireless Remote	Completely wireless and battery powered, wireless remote monitor provides you with instant status information without ever leaving the house.
5951	Advanced Wireless Remote	Remotely control generator functions with the advanced model's LCD display. In addition to remote testing of the generator, set the excercise cycle and maintenance interval reminders.
6199	PMM Starter Kit	The PMM Starter Kit consists of a 24V, field installed transformer that enables the use of the 24V Power Management Modules (PMMs). This kit includes one PMM. The standard controller (without starter kit) can control two HVAC loads with no additional hardware.
6186	Power Management Module (50 Amps)	Power Management Modules are used in conjunction with the Smart Switch to increase its power management capabilities. It gives the Smart Switch additional power management flexibility not found in any other transfer switch. Not compatible with pre-wired switches.
6463	Mobile Link™ Device	Mobile Link device allows you to check the status of your generator from anywhere that you have access to an Internet connection from a PC or with any smart device. You will even be notified when a change in the generator's status occurs via e-mail or text message.
6424	Brown Out Kit	Provides an option for areas that regularly experience utility brown outs by increasing the threshold that the utility power must achieve before allowing drop out or pick up, ensuring the proper voltage is fed into the transfer switch coils.

Dimensions



Left side view



Front view

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